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PRELIMINARY REPORT OF A CASE OF CÆSAREAN SECTION, SUCCESSFUL FOR MOTHER AND CHILD.*

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Mrs. F. was referred to me by Dr. P. T. Burns. She was born in Indiana, and was called a "weakly child" in her first years. Learned to walk in her fourth year, and for a long time had "weak ankles," so that she had to wear braces. There has always been something the matter with the right side of her body, and she has noticed that the right hip and shoulder have been lower than the left. There is an indefinite history of some injury to the pelvis when patient was a child. This needs futher investigation. Menstruation began at seventeen years, was regular and normal; she married at twenty, and is now over twenty-one years of age. The period of September 18, 1895, was normal in all respects. That of October was five days late, was small in amount, and the flow lasted only two days. The patient had believed herself pregnant in October, and this was the last "show."

Quickening was not noted, but the patient says it was about February 22, 1896. Reckoning according to the usual rule, confinement was to be expected August 1st, and it is probable that the patient became pregnant very shortly before the menstruation of October 23d.

Labor began August 1, 1896, at 2 P. M., the pains being few, the intervals long. At midnight they became stronger, and ten minutes apart. Dr. Burns, the family's physician, was sent for. The head

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was freely movable above the inlet, and the doctor diagnosed a highly contracted pelvis. During the night the pains continued strong; in the morning the patient got some rest. At 2 P. M. the conditions were the same as they were during the night, and at five, the pains growing stronger, but no advance in the labor being perceptible, Dr. Burns invited me to see the case. Examination: Small (five feet and three quarter inches), delicately built woman. The narrowness of the hips was especially striking. Slight scoliosis in the lumbar region, convexity to the right.

Pelvic measurements: Crests, 23; spines, 21.3; bitrochanteric, 26; circumference, 79; Baudelocque, 18; conjugata diagonalis, 10; C. V., estimated 8 centimetres.

Sacrum felt from the inside is straight, but lower third projects sharply into the pelvis almost at right angles to the body of the bone. Pelvis is small, sides within easy reach of the finger; linea innominata can be felt all the way round, and there seems to be some asymmetry of the inlet; the right side is flatter than the left. The symphysis pubis is high, is displaced to the right side, and presents somewhat of a beak, which can be grasped by the fingers on either side, and is similar to that observed in osteomalacic pelves. The horizontal ramus of the pubis on the right side runs straight backward; that on the left describes the usual curve. The vulva is displaced fully an inch to the left of the median line, and looks forward and upward more than normal.

The crest of the ilium of the right side is straight; on the left the normal curve is retained.

The fœtus lay occipito dextra posterior; heart tones above and to right of the navel 140 per minute, loud and strong. The head was distinctly visible and palpable as a tumor above the pubis, and, when pressed down upon the inlet, the head projected fully half an inch anterior to the symphysis. It was thus easy to put one branch of the pelvimeter on the head directly, and get the intra-uterine length of the fœtus. This was twenty-six centimetres and a half, and, according to Ahlfeld, the real length of the fœtus was estimated at fifty-three centimetres. The oblique diameter of the fœtal head was also very easy to take, measuring eleven centimetres and a half. These results were obtained so easily and so uniformly when repeated that I felt justified in using them for the diagnosis.

The cervix was effaced, the os admitting two fingers, head ballotting on the finger. Bag of waters intact.

Diagnosis.—A pelvis contracted in all its diameters. The inlet asymmetrically deformed, and of an obliquely oval, possibly somewhat triangular shape. Signs of rickets. I first thought the pelvis came under the class of generally irregularly contracted rachitic pelves, but, since the operation, the idea of a Naegelé pelvis—as the French say, "*oblique ovulaire*"—has come up. I hope to settle this by another examination.

The true conjugate was eight centimetres, but the available conjugate, owing to the irregular contraction, had to be estimated at something less than this. The child was at term (full) and larger than normal in size. It was evident that the spacial disproportion was so great that a living child could not be brought through the inlet by ordinary means. Had there been any room at the sides of the pelvis, prophylactic version and extraction might have succeeded in delivering a living child. This operation does not give good results in generally contracted pelves. There were three courses of treatment open to us:

1. Expectancy, a trial of forceps and craniotomy on the living child as a last resort.
2. Symphysiotomy.
3. Cæsarean section from the relative indication.

The pelvic deformity, the size of the child's head, decided the first. Expectancy meant craniotomy, and craniotomy should not be done on the living child if the conditions are favorable for Cæsarean section.

Symphysiotomy did not offer any better chances than Cæsarean section. A tight vagina and vulva, a necessary great spreading of the bones, especially as in this case the pelvis was obliquely contracted, the integrity of the sacro-iliac joints came seriously into question, the after-effects of such a severe disrupture of the whole osseous system, which I believe occur more often than are published, must make one cautious in selecting this as a primary operation.

It was therefore decided to propose Cæsarean section; in the event of her refusal, expectancy, forceps, craniotomy.

The points were put before the patient and her husband unvarnished, and the operation guaranteeing the life of the child accepted.

The patient was removed to Wesley Hospital, and arrived there at 11.30 P. M. Everything that was to come in contact with the patient was boiled one and a half hour, even though it had been steril-

ized before, and there were only two pairs of hands in the work—my assistant's, Dr. F. X. Walls, and my own.

Dr. I. A. Abt was to undertake the resuscitation of the child; Dr. Zimmerman, interne, gave the anæsthetic (chloroform).

Dr. Burns, Dr. Van Hook, Dr. Byrne, and Dr. Van Velsor were present.

The classical Cæsarean section was done, it being neither indicated nor desired to do a Porro operation. The vagina was thoroughly douched with one-per-cent. lysol solution, the abdomen prepared as usual for laparotomy, and an incision made in the linea alba involving the two middle quarters of a line drawn from the fundus uteri to the pubis.

The uterus was drawn out of the abdomen by the left horn, a large sponge (gauze) placed beneath it, and Dr. Walls compressed the lower uterine segment with both hands.

The uterine incision was begun in the middle of the anterior surface of the fundus, and bled so profusely as to lead to the suspicion that the placenta was situated there, so an elastic ligature was placed around the cervix. The incision in the uterus, which, however, did not touch the placenta, was enlarged with scissors to four inches, and the child quickly extracted on one foot. It was apnœic, not asphyxiated, and came around easily.

The uterus contracted tardily. The placenta, which was partly separated, was peeled off, and membranes removed complete by gentle traction. The hæmorrhage was quite profuse, coming from the placental site as well as the wound, so the uterus was freely mopped with hot sponges, and gently slapped with a hot wet towel.

Sutures were now placed—deep muscular sutures of No. 8 silk—down to the decidua, of which twelve were put in, and over this a Lembert suture of fine silk, continuous, and interrupted every inch.

Hæmorrhage now ceased completely; the peritoneal toilette was made, there being very little fluid in Douglas' *cul-de-sac* and the utero-vesical pouch.

The abdominal wound was closed in two layers—one, using silk, involving peritonæum fat and the fascia; the upper, of silkworm gut, taking in the skin, the subcutaneous fat, and in part the fascia. The first was in part continuous, the latter interrupted. Iodoform and sterilized gauze dressing. The patient was now catheterized and put to bed in good condition, pulse 108.

The subsequent course of the case was uneventful. Eighteen

hours after the operation temperature reached 100° F., but after this the highest was 99.8. The pulse was 108 after the operation, but decreased gradually, till on the twelfth day it was 46 per minute. The diet was as usual after laparotomy. It was difficult to get the bowels moving, but flatus passed freely; so there was no uneasiness in this direction. The stitches were removed on the eleventh day, primary union throughout. There was considerable odor to the lochia in the second week, for which a little iodoform emulsion was injected into the vagina. This had no effect, and, since the patient had no other symptom, the condition was treated no further.

The baby—a girl—at birth weighed seven pounds and a half, and presented the following measurements: Length, 53.5 centimetres; biparietal diameter, 10.2; bitemporal, 9; suboccipito-bregmatic, 9.8; occipito-frontal, 12; oblique, 11; occipito-mental, 13.4; bisacromial, 11; bisiliac, 9.5. Circumferences of head: occipito-frontal, 35; suboccipito-bregmatic, 33.25 centimetres. The head was hard, the sutures and fontanelles almost closed—a head that would have conformed with difficulty even to a normal pelvis.

These measurements agree remarkably with those taken while the child was *in utero*. The length of the fœtus had been estimated at 53 centimetres, and the diameter of the head at 11.5 centimetres. There existed a difference of only half a centimetre in each.

The child was put to the breast immediately, and, with the exception of a little fever and diarrhœa the first few days, grew visibly, gaining almost a pound a week.

The mother and child left the hospital on the twenty-fourth day, both in excellent condition.

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